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Commissioner of Patents and Trademarks
Patent and Trademark Office
Washington, DC 20231

6 September, 2002
Re:
William H. Swain, inventor
Error Correction by Selective Modulation
SN 08/579,395; Filed 12/27/95; Art 2213
Group 2858
703-308-5222, or 305-4900
Primary Examiner: Mr. Ernest F. Karlson

Refund

FEE VALUE ACCOUNTABILITY	
DEPOSIT ACCOUNT NO.	
FEE CODE	VALUE FURNISHED
1400	130.00

Petition to the Commissioner

Advancement of Examination is requested on the basis of:

1. MPEP 707.02(a) Eight (8) substantial office actions.
2. MPEP 707.02(a) Pending 6 1/2 years.
3. 37CFR 1.102(c) Applicant was 80 years old on 24 June 2002.
4. Circumstances summarized in my following section entitled "The Problem"

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TECHNOLOGY CENTER 2800

I enclose the \$130 fee; William H. Swain Co. check #12330.

Introduction and Outline of the Present Invention

I am the 80 year old President, inventor, and engineer for our small company. We make the best you can buy in clamp-on ammeters which accurately measure the magnitude and direction of flow of direct current in cable and pipeline from 3/4 inch to 70 inch diameter. By the grace of our Lord and Savior Jesus Christ we have long had happy customers in the United States and around the world.

At least since 1994 we have worked to reduce zero offset error caused by a non-uniform magnetic field set up by magnetized metal near the clamp. But this had to be done in a way that kept enough sensitivity (gain) for accurately measuring direct current flowing in the pipeline.

After a lot of work I discovered that increasing the peak current (I_{sm}) driven into the winding on the clamp (N_s) did the job on some of our clips and clamps. This is the "Discovery" shown on page 11 of our 27 December 1995 application.

DISCOVERY

The inventor discovered that the output V of many Swain Meter clamps was a lot less sensitive (1/2 to 1/3 in some sensors) to a change in the intensity of a non-uniform magnetic field H_n when the magnitude of an operating parameter I_{sm} was doubled or tripled. And the sensitivity (gain) to a change in signal input current I stayed constant to within a few percent.

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Adjustment date: 09/11/2002 AOSMAN1

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